

1. A finger controllable switching device provided with at least one connector element for inputting information to the electronic device by connecting and disconnecting an electrical connection to the electronic device, wherein the switching device comprises:

- 5 - a finger touchable key member arranged to select a switching position by a planar multi-directional movement of the key member made by the finger towards said at least one connector element,
- triggering means arranged to be pushed against said at least one connector element by said planar multi-directional movement of the key member to connect
10 said at least one connector element, and
- an elastic member arranged to support the key member to its rest position and arranged to restore the key member to said rest position from said switching position by said planar multi-directional movement of the key member to disconnect said at least one connector element, when the key member is released
15 from a finger's grip.

2. A switching device according to claim 1, wherein the triggering means are arranged to be located in a movable way by supporting means in proximity to said at least one connector element and at least partly at the same planar level as the key member.

20 3. A switching device according to claim 2, wherein the key member in its rest position is arranged to be located mainly inside an inner perimeter of the area formed by connecting adjacent triggering means tangentially according to said inner perimeter to each other.

25 4. A switching device according to claim 3, wherein the key member comprises a center disk and a center knob attached to the center area of the center disk, and the elastic member on top of the key member is arranged to support the combination of a center disk and a center knob.

30 5. A switching device according to claim 4, wherein the elastic member is arranged to form on top of the center knob a prepared surface for a finger's grip and on top of the center disk an elastic ridge surface encompassing said prepared surface in a way that the center disk of the key member is capable of the multi-directional planar

movement to connect in association with the triggering means at least one connector element.

6. A switching device according to claim 5, wherein the switching device comprises a front cover arranged to have an aperture through which the elastic ridge surface is arranged to protrude and a periphery of the aperture is arranged to support an outer periphery of the elastic ridge surface when the planar multi-directional movement of the key member occurs.

7. A switching device according to claim 6, wherein the elastic member is arranged to have an opening through which the center knob or the center disk is at least partly arranged to protrude.

8. A switching device according to claim 7, wherein the elastic member is arranged to be attached to the front cover to support the combination of a center disk and a center knob to the rest position of the key member.

9. A switching device according to claim 4, wherein the triggering means are arranged to be pushed against said at least one connector element by an outer perimeter of the center disk to connect said at least one connector element.

10. A switching device according to claim 9, wherein the triggering means are arranged to push in the planar direction said at least one connector element when the outer perimeter of the center disk is pushed towards an inner perimeter of the triggering means to connect said at least one connector element.

11. A switching device according to claim 9, wherein an outer perimeter of the center disk of the key member and the inner perimeter of the triggering means comprise guiding means which are arranged to guide the planar movement of the key member to press vertically said at least one connector element when the outer perimeter of the center disk is pushed towards an inner perimeter of the triggering means to connect said at least one connector element.

12. A switching device according to claim 1, wherein the switching device further comprises

- a frame arranged to be attached to the front cover by first fixing means to house and protect the key member and the triggering means,

- a back plane arranged to be attached to the frame on the other side than the front cover by second fixing means to house and protect the key member and the triggering means, and
- means for electrically connecting said at least one connector element to the electronic device.

13. A switching device according to claim 12, wherein a combination of the frame and back plane which is arranged to form a back cover to be attached to the front cover by the first fixing means, wherein said combination is arranged to comprise means for electrically connecting said at least one connector element to the electronic device and said connector elements are arranged to be attached to at least one wall of the back cover.

14. A switching device according to claim 4, wherein the switching device comprises a center dome element below the key member arranged to be located in a center area of said rest position of the key member, and said center dome element is arranged to be electrically connected to the electronic device by connecting means when the key member is pressed in said rest position of the key member to be in the switching position and electrically disconnected when the key member is released from the switching position.

15. A switching device according to claim 14, wherein said center dome element is arranged to be separated from the key member when said planar multi-directional movement of the key member occurs.

16. A switching device according to claim 15, wherein the triggering means comprise at least one trigger ring which top view is arranged to follow a shape of the outer perimeter of the key member and which is arranged to be located in a movable way by supporting means between the key member and a side dome element at least partly at the same planar level as the key member.

17. A switching device according to claim 15, wherein the triggering means comprise at least one lever or spring frame projecting part arranged to be attached to the frame in a movable way by supporting means in proximity to a location of a bottom dome element so that the guiding means are arranged to be located at least partly at the same planar level as the key member.

18. A switching device according to claim 17, wherein the bottom dome elements are arranged to be located symmetrically around the center dome element on the back plane and on top of both the bottom and center dome elements is attached a single dome sheet.
- 5 19. A switching device according to claim 18, wherein the center disk of the key member is arranged to have a protruding leg to slide against a block cavity of the frame to stop the movement of the key member.